CP5-40X
Protocol
Converter

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Introduction

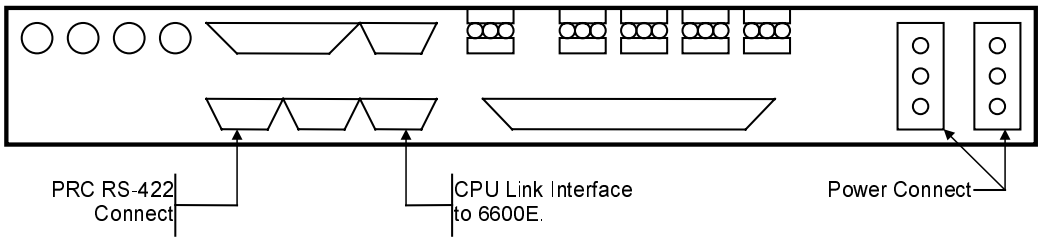
The CP5-40X protocol converter is designed to allow for PESA 40X matrices to be controlled by PESA control systems using the PRC system protocol. The CP5-40X box inputs PRC commands from the controller from the PRC RS-422 connection and interprets them into standard CPU link commands via RS-232 communications. These are in turn interpreted by a 6600E controller that turns the commands to a 40X-matrix command.

Connections

The CP5-40X is connected to the PESA controller and system 5 matrices through the following interconnects:

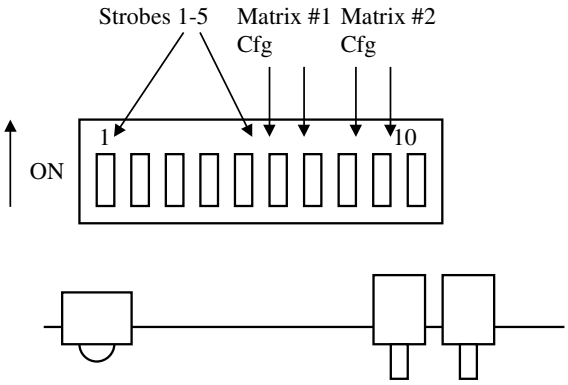
1. Connect Power to the CP5-40X (J17 or J18) from a standard PESA video power supply. (This may be accessible through the auxiliary power connectors on other video frames.)
2. Connect the PRC control cable to the bottom left hand 9 pin D connector (COM3/PRC). This is a pin to pin connection from the PESA controllers 9 pin PRC control port.
3. Connect a serial cable to from the bottom right hand 9 pin D connector (COM1) to the CPU Link connector on the 6600E chassis.

Backplane Layout of CP5-40X Unit



Programming

The CP5-40X has the ability to control 40X matrices on two strobes with up to 80 inputs and outputs on each strobe. The information indicating which strobes are active and the size of the matrices is determined by setting the DIP switch on the CP5-40X CPU.



2400 EX DIP Switch Positioning

Strobe Settings

Positions 1-5

OFF = PRC Strobe #x is disabled

ON = PRC Strobe #x is enabled

(#x corresponds to the DIP switch position, i.e. position 1 for strobe 1, position 2 for strobe 2, etc.)

(There is a limit to a maximum of two strobes being active at any one time. In this case, the first two selected are the ones used.)

Matrix Size

Matrix size DIP switches indicate to the CP5-40X the maximum size of the matrices being controlled. However, it does not restrict the smallest size of the matrix. It is used to indicate to the CP5-40X where it should look for matrix cards and allows it to optimize its performance on smaller systems.

Swx 6 = OFF - Matrix #1 has a maximum of 40 inputs
Swx 6 = ON - Matrix #1 has a maximum of 80 inputs

Swx 7 = OFF - Matrix #1 has a maximum of 40 outputs
Swx 7 = ON - Matrix #1 has a maximum of 80 outputs

Swx 8 = OFF - Matrix #2 has a maximum of 40 inputs
Swx 8 = ON - Matrix #2 has a maximum of 80 inputs

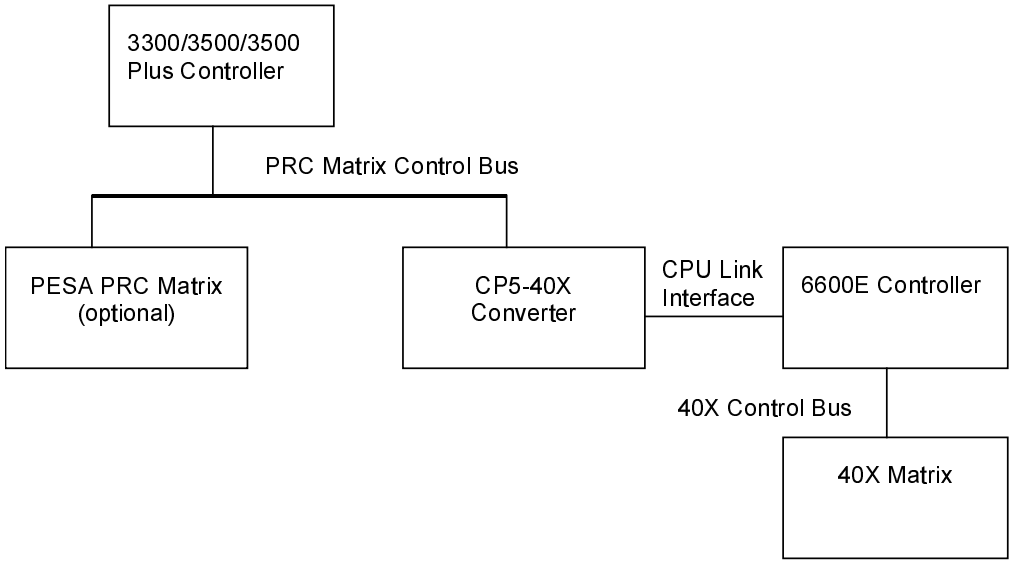
Swx 9 = OFF - Matrix #2 has a maximum of 40 outputs
Swx 9 = ON - Matrix #2 has a maximum of 80 outputs

Address Space Mapping

The CP5-40X maps the 40X levels directly to the PRC strobes selected. The first PRC strobe selected corresponds to the 40X video level. The second PRC strobe selected corresponds to the 40X audio level. For example, when Strobe 1 and 2 are active on the CP5-40X, the 40X video level responds to strobe 1 on the PRC and the audio responds to strobe 2.

6600E Interface

The 40X matrix is actually controlled by a 6600E controller. The 6600E takes serial CPU Link commands and interprets them into 40X matrix commands.



The 6600E controller must be properly configured to accept the commands from the CP5-40X. To insure this, the controller should be configured for two levels of control with each level configured for at least the number of inputs and outputs as is the CP5-40X.

CPU Link Interface Cables Between CP5-40X and 6600E:

The following are cable pinouts for connections between a CP5-40X and a 6600E with either a 9 pin CPU link connection or a 25 pin CPU link connection.

9 pin Connection:

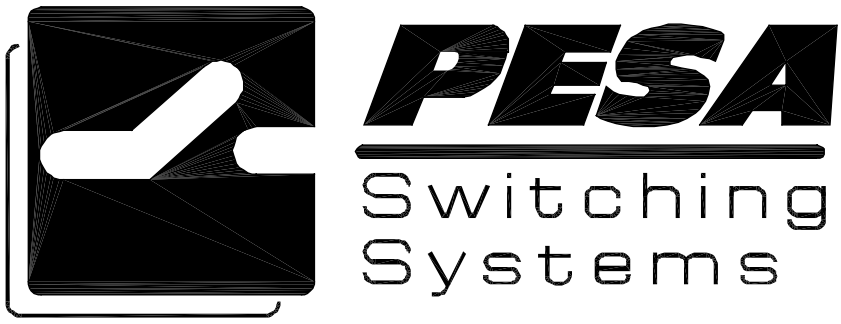
6600E 9 pin Female D connector	CP5-40X 9 pin Female D connector
CD - 1	CD - 1
TX - 2	RX - 2
RX - 3	TX - 3
GND - 5	GND - 5
CTS - 7	RTS - 7
RTS - 8	CTS - 8

25 pin Connection:

6600E 25 pin Female D connector	CP5-40X 9 pin Female D connector
TX - 3	RX - 2
RX - 2	TX - 3
GND - 7	GND - 5
CTS - 4	RTS - 7
RTS - 5	CTS - 8

Revision History

Rev.	Date	Description	By
A	06-18-96	Initial Release	G. Tarlton
B	03-06-01	Deleted Printing Specification per ECO CE00113	G. Tarlton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